CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.08/KRIDL/CEMENT/2014-15

Date: 06.08.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager**, KRIDL, Bangalore.
NAME OF THE WORK	:	Improvements to Roads and Drains at Badrappa Layout, Maruthinagar, Devinagara, Muneshwaranagara and Kodigehalli Grama in Ward No.08, Kodigehalli Sub Division, BBMP, Bangalore.
REFERENCE	:	AEE/KG/WO/598/2014-15 Dated: 05.08.2014
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	150 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	475 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	26.00 %	-

Note:

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Job No.: CTCE/BBMP/W.No.08/KRIDL/SAND/2014-15 : 06.08.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to Roads and Drains at Badrappa Layout, Maruthinagar, Devinagara, Muneshwaranagara and Kodigehalli Grama in Ward No.08, Kodigehalli Sub Division, BBMP, Bangalore.

Reference : AEE/KG/WO/598/2014-15 Dated: 05.08.2014

Date of Testing : 06.08.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	112	5.60	5.60	94.4	90-100
2.36	215	10.75	16.35	83.7	75-100
1.18	518	25.90	42.25	57.8	55-90
600 Micron	426	21.30	63.55	36.5	35-59
300 Micron	472	23.60	87.15	12.9	8-30
150 Micron	210	10.50	97.65	2.4	0-10

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Job No.: CTCE/BBMP/W.No.08/KRIDL/AGG/2014-15 : 06.08.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to Roads and Drains at Badrappa Layout, Maruthinagar, Devinagara, Muneshwaranagara and Kodigehalli Grama in Ward No.08, Kodigehalli Sub Division, BBMP, Bangalore.

Reference : AEE/KG/WO/598/2014-15 Dated: 05.08.2014

Date of Testing : 06.08.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25800**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	1022	3.96	3.96	96.04	95-100
20	15648	60.65	64.61	35.39	30-70
10	6246	24.21	88.82	11.18	10-35
4.75	2584	10.02	98.84	1.16	0-5

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Job No.: CTCE/BBMP/W.No.08/KRIDL/STEEL/2014-15 06.08.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager**, KRIDL, Bangalore.
Name of the work	:	Improvements to Roads and Drains at Badrappa Layout, Maruthinagar, Devinagara, Muneshwaranagara and Kodigehalli Grama in Ward No.08, Kodigehalli Sub Division, BBMP, Bangalore.
Reference	:	AEE/KG/WO/598/2014-15 Dated: 05.08.2014
Date of Test	:	06.08.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	10	0.62	513	551	13.10	O.K	O.K

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Job No.: CTCE/BBMP/W.No.08/KRIDL/CUBE/2014-15 16.09.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the work : Improvements to Roads and Drains at Badrappa Layout, Maruthinagar, Devinagara, Muneshwaranagara and Kodigehalli Grama in Ward No.08, Kodigehalli Sub Division, BBMP, Bangalore.

Reference : AEE/KG/WO/598/2014-15 Dated: 05.08.2014

Sample ID : Drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.08.2014	16.09.2014	8.157	489.5	21.76
2	19.08.2014	16.09.2014	8.263	505.4	22.46
3	19.08.2014	16.09.2014	8.394	526.7	23.41

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Job No.: CTCE/BBMP/W.No.08/KRIDL/CUBE/2014-15 20.09.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the work : Improvements to Roads and Drains at Badrappa Layout, Maruthinagar, Devinagara, Muneshwaranagara and Kodigehalli Grama in Ward No.08, Kodigehalli Sub Division, BBMP, Bangalore.

Reference : AEE/KG/WO/598/2014-15 Dated: 05.08.2014

Sample ID : Pavement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.08.2014	20.09.2014	8.294	492.6	21.89
2	23.08.2014	20.09.2014	8.376	515.3	22.90
3	23.08.2014	20.09.2014	8.485	528.7	23.50

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